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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/608,142

06/30/2003

Ashoke Ravi

P-5783-US

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03/20/2006

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EXAMINER

YUN, EUGENE

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/608,142	RAVI ET AL.	
	Examiner	Art Unit	
	Eugene Yun	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 11, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Holdaway (US 4,198,604).

Referring to Claim 1, Holdaway teaches an apparatus comprising a tuner to tune an oscillation frequency of an oscillator to a value between a first free-running frequency of a first oscillation tank and a second free-running frequency of a second oscillation tank (see fig. 6 where three oscillators are present, one tuned to 280 MHz, one to 2.05-3.60 GHz one placed in between them tuned to 1753.6 MHz which is in between the other 2 frequencies).

Claim 21 has similar limitations as Claim 1.

Referring to Claim 11, Holdaway teaches a wireless communication device comprising:

A dipole antenna to send and receive wireless communication signals (see col. 1, lines 18-31 noting that the use of FM band signals usually involves the use of a dipole antenna); and

An oscillator comprising a tuner to tune an oscillation frequency of an oscillator to a value between a first free-running frequency of a first oscillation tank and a second

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free-running frequency of a second oscillation tank (see fig. 6 where three oscillators are present, one tuned to 280 MHz, one to 2.05-3.60 GHz one placed in between them tuned to 1753.6 MHz which is in between the other 2 frequencies).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-10, 12-20, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdaway in view of Igarashi et al. (US 5,950,143).

Referring to Claims 2, 12 and 22, Holdaway does not teach a scaler to produce a first gain in a first path of the oscillator associated with the first oscillation tank and to produce a second gain in a second path of said oscillator associated with the second oscillation tank. Igarashi teaches a scaler to produce a first gain in a first path of the oscillator associated with the first oscillation tank (see col. 5, line 66 to col. 6, line 6) and to produce a second gain in a second path of said oscillator associated with the second oscillation tank (see col. 5, lines 23-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Igarashi to the device of Holdaway in order to better reduce interference between oscillation signals.

Referring to Claims 3, 13, and 23, Igarashi also teaches an adder to add first and second signal components passing through said first and second paths (see col. 12, lines 21-27).

Referring to Claims 4, 14, and 24, Igarashi also teaches the first and second gains as complimentary (see col. 12, lines 28-37).

Referring to Claims 5, 15, and 25, Igarashi also teaches the sum of the first and second gains as substantially constant (see col. 12, lines 21-27).

Referring to Claims 6, 16, and 26, Igarashi also teaches the sum of the first and second gains as substantially equal to one (see col. 1, lines 21-27).

Referring to Claims 7, 17, and 27, Igarashi also teaches the tuner able to control the relative values of said first and second gains (see col. 12, lines 28-37).

Referring to Claims 8 and 18, Igarashi also teaches first and second amplifiers on said first and second paths, respectively, to provide said first and second gains, respectively (see col. 10, lines 15-22).

Referring to Claims 9 and 19, Igarashi also teaches controlling first and second voltages applied to said first and second amplifiers, respectively (see col. 10, lines 22-41).

Referring to Claims 10 and 20, Igarashi also teaches the first path comprising a first transconductor and the second path comprising a second transconductor (see col. 9, line 66 to col. 10, line 14).


Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (571) 272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eugene Yun
Examiner
Art Unit 2682

EY



Matthew D Anderson
SPE 2618